

Appl. No. 10/646,100
Amdt. Dated 10/14/2004
Reply to Office Action of September 14, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4: (Canceled)

5. (Currently Amended) A four port coupling device including ports 1, 2, 3 and 4, port 1 for receiving an input signal, and having an output appearing across ports 2 and 3 and the input appearing across ports 1 and 4,

a transmission line capacitor coupled between each port and ground,

a first transformer having a first winding connected between ports 1 and 2 and a second winding connected between ports 3 and 4, said first and second windings being coupled in phase, a second transformer having a first winding connected across port 1 and port 4 sides of said first and second windings of said first transformer, respectively, ports 1 and 4 and a second winding coupled connected across port 2 and port 3 sides of the first and second windings of said first transformer, respectively ports 2 and 3, said windings of said second transformer being coupled in phase.

6. (Original) The coupling device of claim 5 wherein the windings of said first and second transformers respectively are closely coupled.

7. (Original) The coupling device of claim 6 wherein each winding of the first transformer has an inductance of 33.5 nH, each winding of the second transistor has a value of 47.5 nH and said capacitors each have a capacitance of 45 pF, whereby phases of substantially 90° and 180° respectively are provided at ports 2 and 3 at an input frequency of 170 MHz.

8. (Original) The coupling device of claim 6 wherein each winding of the second transformer has an inductance of 2.8 nH, each winding of the second transistor has a value of 3.9

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nH and said capacitors each have a capacitance of 3.9 pF, whereby phases of substantially 90° and 180° respectively are provided at ports 2 and 3 at an input frequency of 2 GHz.

Claims 9-10: (Canceled)